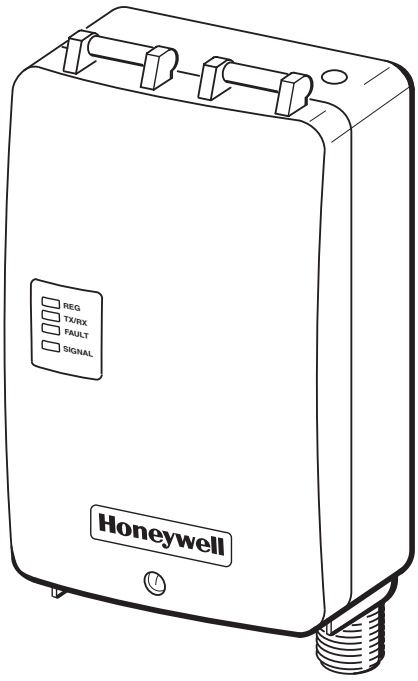
Honeywell

GSMX

GSM Communicator

Installation and Setup Guide



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General Information

The GSMX GSM Communicator (also herein referred to as the module) easily connects to your security system's control panel and sends alarms and messages to AlarmNet for subsequent transfer to the central monitoring station. It can be mounted directly on the control panel or remotely.

The GSMX requires an AlarmNet account. For new installations, please obtain the account information from the central station prior to programming this module.

The GSMX communicates with AlarmNet using GSM (Global System for Mobile) technology utilizing GPRS (General Packet Radio Service) as a means of data transfer. If the GPRS part of the GSM cellular network is unavailable, it will attempt to send a transmission via SMS (Short Message Service) also known as a text message.

ULC SMS has not been evaluated for ULC central station communication.

Features

- Reports fire, burg, and status messages via GSM.
- Internal antenna provides additional security.
- Simple programming using the 7720P programming tool or via the AlarmNet Direct website.
- Uses 2 way ECP communication with the control.
- Sends reports in Contact ID format.
- Supports remote control of alarm system via Remote Services Feature.
- Allows uploading and downloading of control panel data via GSM.
- Fully powered (primary and backup battery) from the control panel.

Modes of Operation

- The GSMX is for control panels that support LRR-ECP communication.
- The control panel treats the GSMX as a Long Range Radio (LRR) device, so program the control panel accordingly, including setting the module's LRR device address.
- 4204 Mode, and two 4204 Mode operation.

Supervision and Fault Detection

- Network communication failure – In the event the AlarmNet network does not hear a supervisory message from the module within a specified time ("Supervision" option, 24 hours, 30 days, or none), AlarmNet notifies the central station of a communication failure.
- Communication path failure – In the event the module detects a communication path failure, the control panel can be notified of a trouble condition with the module after a specified time has elapsed.

Specifications

Dimensions	4 x 7 x 1.75 inches
Input Voltage	12VDC (powered via the ECP bus.)
Standby Current	30mA
Transmit Current	200mA (Average)
Transceiver Type	GSM/GPRS with internal antenna

Data Encryption

This module supports private key encryption. Private Key encryption means that both the sender and the receiver know the KEY used to encrypt the data. Each device produced by Honeywell is loaded with a unique identifier called a MAC number, and a large random number or KEY. This KEY and MAC number are also stored in the AlarmNet servers.

When a device contacts AlarmNet, it sends the MAC number followed by the message that is encrypted using the KEY data. The server looks up the MAC number and uses the KEY associated with it to decrypt the message.

The KEY uses 256-bit AES (Rijndael) encryption (which is required for certain government installations). Further, the AlarmNet AES Encryption Software Module Version 1.0 contained in the Honeywell products have NIST approval. Listings for this approval can be found at http://csrc.nist.gov/cryptval/aes/aesval.html Certification number 127.

Remote Services Features

UL Remote Access and Multi-Mode have not been evaluated by UL.

Honeywell offers secure web based services that enable users to remotely monitor and control their security system. These web services enable users to:

- Monitor and control their security system from a website
- Receive e-mail and text message notifications of system events
- Control the system and receive confirmations using text messages

Dealers can enroll their customers for "Remote Services" by using the AlarmNet Direct website. Once enabled, the specific programming fields associated with these features can be programmed into the communications device either remotely using the AlarmNet Direct website or locally using the 7720P programming tool.

E-mail notification (Multi Mode) is intended as a convenience for the user, and does not replace Central Station reporting of critical events (alarms, troubles, etc.).

Testing the System

After installation the security system should be tested. Refer to the control panel installation instructions for procedures to test the entire system.

Compatibility

The GSMX functions with any control panel that utilizes a Honeywell ECP bus and supports Long Range Radio.

Compliance

This device has been tested by ETL to meet the following standards:

- UL985 – Residential Fire
- UL1023 – Residential Burg

Mounting and Wiring the Module

Select a Mounting Location

When choosing a suitable mounting location, understand that it must be mounted indoors, and for best signal strength it should be mounted vertically. Signal strength is very important for proper operation. For most installations, mounting the unit on the control panel provides adequate signal strength and we suggest that this method is tried first. Especially if the control panel is not in a basement location or in an area that contains large metal objects.

If the control panel location does not provide adequate signal strength, then the module can be mounted remotely.

NOTE: The SIM in the communications module must be ACTIVATED first in order for signal strength to be determined.

Once the module is installed and programmed, it must be Registered with AlarmNet. Registering activates the account with AlarmNet and enables the security system's control panel to send reports.

Activating the SIM

Go to: https://services.alarmnet.com/AlarmNetDirect/

If you are not signed up for this service, click on "Dealer Signup" from the login screen to set up your dealer account. You will be instructed how to proceed upon completing the sign-up form. Only one sign-up per dealer is required. Once an initial user is established, additional logins may be created by that user.

Log in and follow the on-screen prompts. At this time only activate the SIM so signal strength may be checked. DO NOT register the module at this time. Please have the following information available to activate the SIM:

- MAC number and MAC CRC (located on outside of box and on label inside module).

You may log out of the AlarmNet Direct website.

Once the module is installed and programmed, it must be Registered with AlarmNet. Registering activates the account with AlarmNet and enables the security system's control panel to send reports.

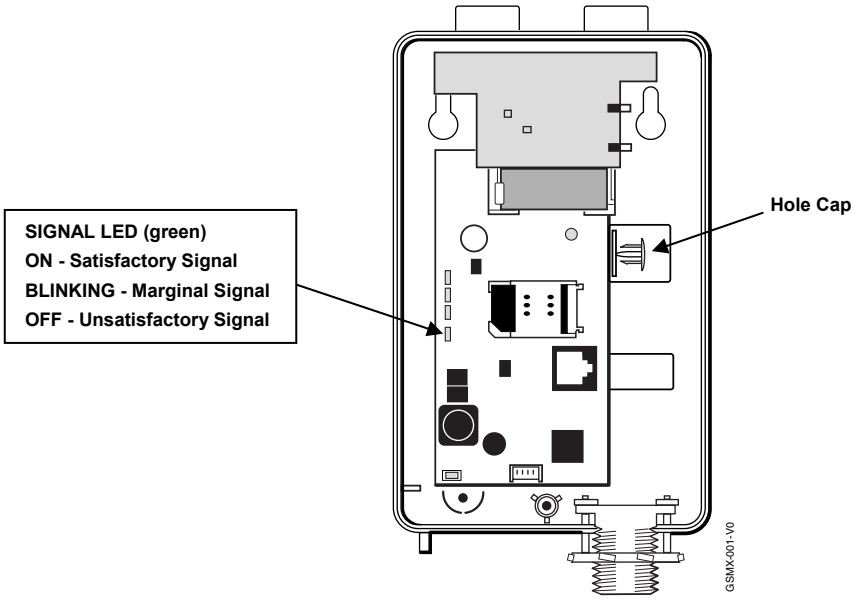
Verifying Satisfactory Signal Strength

NOTE: In this procedure you will temporarily power up the communications module to check for satisfactory signal strength. You can power it from a 12V battery or from the control panels AUX PWR terminals. In buildings where reception may be a problem, powering from a battery would allow the module to be portable. The following procedure assumes the control panel will be used for power.

If satisfactory signal strength is present at the control panel that is the preferred mounting location.

1. Ensure power to the control panel (both AC and battery) is off. Open the enclosure and connect the ECP cable to the GSMX module. Temporarily attach the Black and Red wires to the GND and AUX PWR terminals of the control panel. DO NOT connect the Yellow and Green wires at this time.
2. Turn power on and wait about one minute for the module to initialize. Position the module near a suitable mounting position.

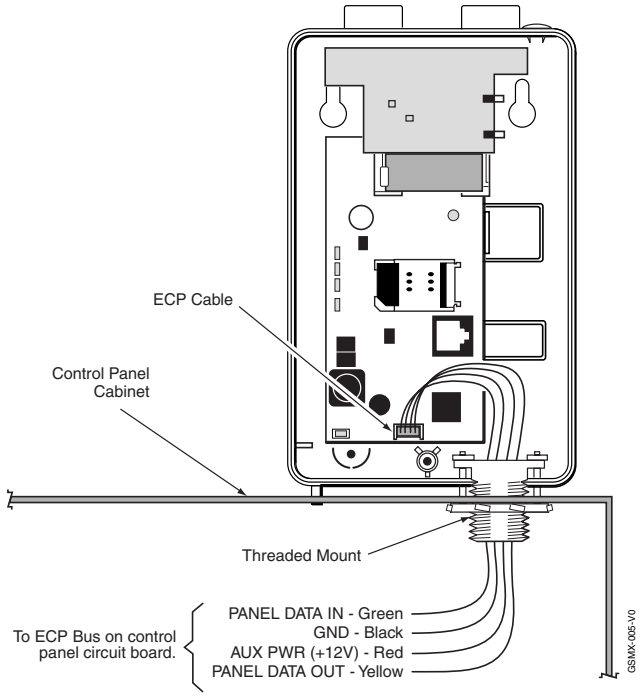
Verify the SIGNAL LED (green) lights steady. This indicates satisfactory signal strength.



3. Verify the SIGNAL LED (green) remains steady for a few minutes, then mark that mounting position. Turn power off.

Mounting the Module on the Control Panel

1. Ensure power to the control panel (both AC and battery) is off, then remove the knockout on the top right of the control panel cabinet.
2. Open the GSMX cover. Remove the Hole Cap attached to the plastic (trim as necessary), and snap it into the top opening of the enclosure.
3. Remove the bottom knockout on the GSMX enclosure for the threaded mount. Then install the threaded mount so it snaps into the plastic retaining tabs. Mount the GSMX assembly on the cabinet's knockout, and fasten with the locking nut.
4. Connect the ECP cable to the GSMX circuit board and thread the wires through the threaded mounting adapter.



5. Refer to the installation guide for the control panel, and complete the ECP cable wiring.
6. Secure the wiring with ties as necessary.

Mounting the Module on the Wall

1. Ensure power to the control panel (both AC and battery) is off, then remove a suitable knockout on the top or side of the control panel cabinet.

   NOTES:

   - If in the wall wiring will be used, route the wiring through the communications module's rear wiring access hole.
   - If surface mounted wiring will be used, remove the communications module's bottom knockout and use that to route the wiring.

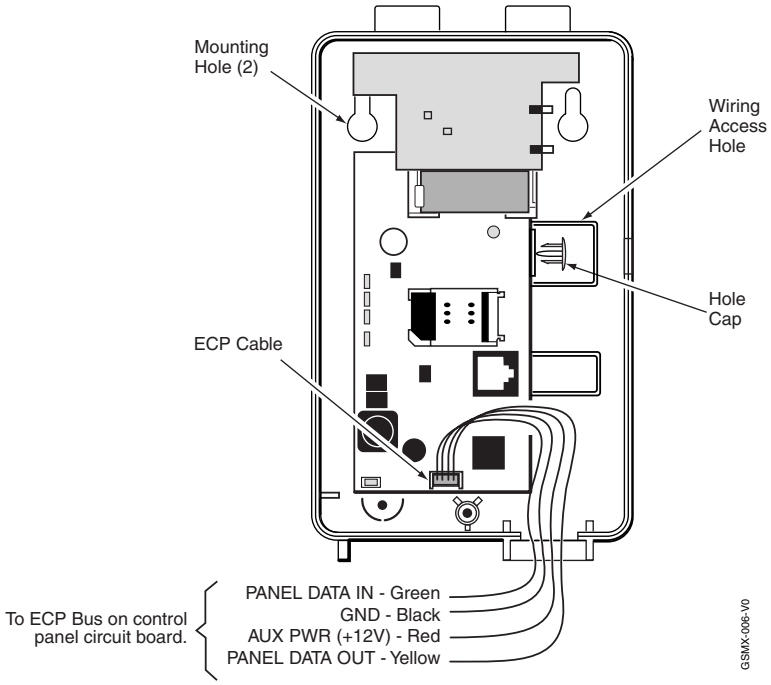
2. Open the GSMX cover. Remove the Hole Cap attached to the plastic (trim as necessary), and snap it into the top opening of the enclosure.
3. Secure the enclosure to the wall using both mounting holes.

4. Connect the ECP cable to the GSMX circuit board. When mounting the GSMX off the cabinet, the length of the supplied ECP cable will have to be spliced to a four-wire extender cable. **Ensure the splices are located within the GSMX's enclosure.**

   Use the table below to determine the minimum wire gauge for the extender cable.

Minimum Wire Gauge	Distance from Control Panel
#22	75 ft (23m)
#20	120 ft (37m)
#18	170 ft (52m)
#16	270 ft (82m)

5. Route the wires through the rear wiring access hole or bottom knockout on the GSMX. Continue routing the wiring to the control panel. A control panel knockout that is presently used can be utilized, however DO NOT utilize a control panel knockout that is being used for primary power.



6. Refer to the installation guide for the control panel, and complete the ECP cable wiring.
7. Secure the wiring with ties as necessary.

Programming the Module

The GSMX requires an AlarmNet account. For new installations, please obtain the account information from the central station prior to programming this module.

You can program the communications module by one of the following methods:

- Using the AlarmNet Direct website.
- Using the 7720P Programming Tool.
- Using the control panel's programming mode (for panels that support this option) to access the communication module's programming.

NOTE: The prompts in this document reflect use of the 7720P Programming Tool.

Using the AlarmNet Direct Website

To program the module via the website (if you are already signed up for this service), go to: https://services.alarmnet.com/AlarmNetDirect/

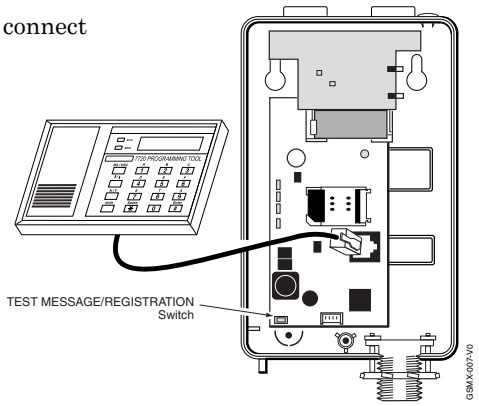
If you are not signed up for this service, click on "Dealer Sign-Up" and follow the instructions. Log in and follow the on-screen prompts. Please have the following information available when programming the module:

- Primary City ID (two-digit number), obtained from your monitoring station.
- Primary Central Station ID (two-digit number), obtained from your monitoring station.
- Primary Subscriber ID (four-digit number), obtained from your monitoring station.
- Communications module MAC ID and MAC CRC number (located on the outside of box and on a label inside the module).

After programming is complete, the module must be registered. Refer to the ***Register the Module*** topic.

Using the 7720P Programming Tool

Ensure the GSMX is powered, and connect the 7720P Programming Tool.



Each key has two possible functions; a Normal function and a Shift function.

- To perform a Normal key function, simply press the desired key.
- To perform a Shift function, press the [shift] key, then press the appropriate key.

The following table lists each normal and shift key function.

7720P Normal and Shift Key (shift LED lit) Functions		
KEY	**NORMAL KEY FUNCTION**	**SHIFT + KEY FUNCTION**
BS/ESC	[BS]: Press to delete entry	[ESC]: Press to quit program mode; also can reset programming defaults.*
↓/↑	[↓]: Scroll down programming	[↑]: Scroll up programming
N/Y	[N]: Press for "NO" answer	[Y]: Press for "YES" answer
SHIFT	Press before pressing a SHIFT key function. Will light SHIFT LED. LED goes out once a key is pressed. Press again for each SHIFT function desired.	
1/A	[1]: For entering the number 1	[A]: For entering letter A
2/B	[2]: For entering the number 2	[B]: For entering letter B
3/C	[3]: For entering the number 3	[C]: For entering letter C
4/D	[4]: For entering the number 4	[D]: For entering letter D
5/E	[5]: For entering the number 5	[E]: For entering letter E
6/F	[6]: For entering the number 6	[F]: For entering letter F
7/S	[7]: For entering the number 7	[S]: For entering letter S
8/T	[8]: For entering the number 8	[T]: For entering letter T
9/X	[9]: For entering the number 9	[X]: For entering letter X

SPACE	[SPACE]: For scrolling option list	No SHIFT function
0	[0]: For entering the number 0	No SHIFT function
#/ENTER	[#/ENTER]: Starts programming mode; Press to accept entries	No SHIFT function

* Active only when the "Exit Programming Mode" prompt is displayed.

Programming Conventions

- Programming is accomplished by answering a series of prompts. Most prompts require only a [Y]es or [N]o response, while others require a numerical response (ID numbers, etc.).
- The current value is displayed on the second line in parentheses ( ). A "?" indicates an invalid entry.
- Use the [ENTER] key to accept the current entry and proceed to the next prompt. If the entered value is invalid, pressing [ENTER] re-displays the prompt; the next prompt is not displayed until a valid answer is entered.
- Use the up/down arrow keys to scroll through the programming prompts without changing any values.
- Press the [ESC] key to go to the end of the list of prompts.

Using the Control Panel

Some control panels support programming of the communications module through the control panel programming mode. If using this method of programming, only the ECP Mode programming options are available. Other "mode" prompts will not be displayed, and the mode cannot be changed. For a description of key functions on the control panel keypad, and how they map to the 7720P programming tool, refer to the control panel's *Programming Guide*.

Programming for ECP Mode

ECP mode enables the control panel to communicate with the module via the ECP bus. Control panels that support this bus and have the LRR (Long Range Radio) enabled, send Contact ID format alarms to the module over the ECP bus. Not all control panels support the LRR interface on ECP, so be sure to check the control panel's *Installation and Setup Guide* to see if it supports this feature.

ULC Only ECP Mode has been approved for ULC installations.

Press the [ENTER] key to begin programming.

NOTE: The central station can remotely block access to local device programming. If this has been done, prompt on the right appears.

Access to Prog
Mode Denied

The default programming values for each prompt are shown in parentheses in the PROMPTS column. Further, the table below shows all the prompts for this programming mode. Depending on your answers, unnecessary prompts will be bypassed and you will advance to the next appropriate prompt.

Programming for 4204 and Two-4204 Emulation Modes

In this mode the communications module emulates a 4204 module (or two) and appears to the control panel as a 4204 module. If two 4204s are enabled in the communications module, it acts as two 4204s using consecutive device addresses.

The compatible Honeywell VISTA series or First Alert control panel sends data (triggers) to the communications module as if it were a 4204 module. (The control panel must be configured to recognize one or two 4204 relay modules accordingly.) On VISTA-32FB (or higher) control panels and First Alert equivalents, addresses 6 and 13 should not be used when the secondary 4204 is enabled. Messages are sent in ADEMCO High-Speed format.

NOTE: See your control panel Installation and Setup Guide for the number of 4204 modules supported.

4204 Emulation Mode Options

For control panels that do not support LRR-ECP communication, the 4204 Emulation modes provide a means of sending up to eight unique reports based on defined system conditions. In 4204 mode, the communications module functions as a logical 4204 Relay Module, where each relay number, referred to in the module as zone number, can be programmed to send a report based on the output function programmed in the control for that relay. Each relay-zone can also be programmed to send a restore message of the reported condition, can be set to delay transmission of messages, and can be programmed to send reports only when a conditional zone is triggered (armed).

In single 4204 mode, the module supports up to four relay-zones. In Two-4204 mode, the module functions as two 4204 modules, supporting up to eight relay-zones. Refer to the following table.

4204 Relay Outputs map to zones	
First 4204 Zones (device address entered in Prompt 15)**:**	**Second 4204 Zones** (device address entered in Prompt 15, plus 1)**:**
Relay 1 = Zone 1 Relay 2 = Zone 2 Relay 3 = Zone 3 Relay 4 = Zone 4 or conditional zone trigger if "report only if armed" is selected in any zone 1-3 when using single 4204 mode. **NOTE:** Zone 4 status is not reported when being used as the conditional (armed) trigger zone.	Relay 1 = Zone 5 Relay 2 = Zone 6 Relay 3 = Zone 7 Relay 4 = Zone 8 or conditional zone trigger if "report only if armed" is selected in any zone 1-7 when using Two-4204 mode. **NOTE:** Zone 8 status is not reported when being used as the conditional (armed) trigger zone or if tamper reporting is enabled.

When using the module in 4204 Emulation Mode, DO NOT enable the Long-Range Radio module in control panel programming. Instead, enable 4204 relay module address(es) and program the appropriate relay activation functions for the relay-zones being used. In some control panels, it is called "relay programming" and in others it is called "output device programming." It is recommended that "close and stay closed" (usually choice 2) action is selected. Selection of momentary activation will cause the communications module to generate an alarm and NOT a restore, even if the module is programmed to send a restore for the given zone.

In 4204 mode, messages are reported in ADEMCO High-Speed format. Zone alarms
(status 7) are reported with "1" (alarm) or "3" (restore) displayed in the zone position for the respective zone (e.g. alarm on zone 2: 5155 5555 7; restore 5355 5555 7). A supervision fault trouble message is automatically sent if the module detects no activity on its connection to the control. The message is: 5555 5515 5; restore message is: 5555 5535 5.

Programming Options

NOTE: The default programming values are listed in the prompts below.

	PROMPTS	ENTRY	OPTIONS	DESCRIPTION
1	**Strt Prog Mode?** **(Y/N)_**		[Y], [N]	Enters programming mode.
2	**Enter Password**		[0-9, A-F, N, S, T, X, Y]	If a password has been previously assigned, this prompt appears. Enter a 4-digit password (0-9, A-F, N, S, T, X, Y). The next prompt appears.
3	**Program Device?** **(Y/N)_**		[Y], [N]	To begin programming the module, press [Y] and go to Prompt 9: "Device Mode." To create a password if none has been assigned, press [N] and go to Prompt 4: "Create Password?." To change an existing password, press [N] and go to Prompt 5: "Change Password?."
4	**Create Password?** **(Y/N)_**		[Y], [N]	Passwords can be used to protect account and programming information. If no password has been assigned, this prompt appears after pressing [N] at the "Program Device?" prompt. If a password is desired, press [Y] and go to Prompt 6: "Enter Password."

	PROMPTS	ENTRY	OPTIONS	DESCRIPTION
5	**Change Password? (Y/N)_**		[Y], [N]	If a password has already been assigned, this prompt appears after pressing [N] at the "Program Device?" prompt. Press [Y] if you want to change the password. **NOTE:** To clear an existing password, without entering a new one, answer [Y] to the "Change Password?" prompt, then press the [Enter] key when prompted for the new password and its confirmation.
6	**Enter Password**		[0-9, A-F, N, S, T, X, Y]	This prompt is displayed if [Y] was pressed in Prompt 4 or 5. Enter a 4-digit password (0-9, A-F, N, S, T, X, Y).
7	**Verify Password**		[0-9, A-F, N, S, T, X, Y]	Re-enter the password as confirmation. If the password doesn't match the first entry, the following is displayed followed by the "Exit Prog. Mode?" prompt: **Verify Not OK** **PSWD not created** Otherwise, the "Exit Prog. Mode?" prompt is displayed directly.
8	**Exit Prog. Mode? (Y/N)_**		[Y], [N] [ESC]	Exits program mode. Press [N] to go back to Prompt 3. Press [ESC] to load factory defaults. Refer to the ***Exiting the Programming Mode*** topic.
9	**Device Mode (ECP)_**		• ECP • 4204 Emu • Two 4204s	Press the [space] key to scroll through the modes of operation. Press [ENTER] to select the desired mode.

	PROMPTS	ENTRY	OPTIONS	DESCRIPTION
NOTE: Prompts 10 and 11 only appear if the Multi-Mode feature has been enabled.				
Setting up E-mail Notifications (Multi-Mode feature) **NOTE:** E-mail notification is intended as a convenience for the user, and does not replace Central Station reporting of critical events (alarms, troubles, etc.). Users can receive e-mail notification of system events by using the Multi-Mode feature. The following items must be met to use this feature. • The Multi-Mode feature must be enabled during account programming on the AlarmNet Direct website by selecting "Enabled" at Multi-Mode prompt. • The GSMX will emulate one or two 4204 relay modules to accommodate system events that are programmed in the control panel. When programming the GSMX, at prompt #10, choose **4204-Sourced** so the user can be notified of up to four events, or choose **2-4204-Sourced** so the user can be notified of up to eight system events. • The 4204 relay events used to trigger email notifications are defined on the Honeywell Total Connect website, and must correspond to outputs (relays) programmed in the control panel through Output Device programming. • The Multi-Mode address selected at prompt #11 in the GSMX (or at the AlarmNet Direct website) must match the address of a 4204 relay module enabled in the control panel (although you don't actually connect a module). If using "2-4204-sourced," the address of the second module is automatically assigned the next device address after the first 4204. Make sure that address is also enabled in the control panel.				
10	**Multi Mode (Disabled)_**		• Disabled • 4204 Sourced • 2-4204 Sourced	Enable if you want system events sent by e-mail to the user. Select "4204 Sourced" to send up to four events, or "2-4204 Sourced" to send up to eight events. Disable for normal alarm processing and go to Prompt 12 "Primary City ID" prompt.
11	**Multi Mode Addr (12)**		[01-30]	This address must be programmed if using the Multi-Mode (e-mail notification) feature. The device address must be unique from the normal LRR Device Address and the Keypad Address used for Remote Access or Direct Wire downloading. The address used must also be enabled as a 4204 relay module in Vista and First Alert control panels.

	PROMPTS	ENTRY	OPTIONS	DESCRIPTION
NOTE: Account information is provided by the central station administrator.				
12	**Primary City ID (??)_**		[01-99]	Enter the 2-digit primary city ID, 01-99 (decimal).
13	**Primary CS ID (??)**		[01-FE]	Enter the 2-digit primary central station ID number, 01-FE (HEX).
14	**Primary Sub ID (????)**		[0001-9999]	Enter the 4-digit subscriber account number, 0001-9999 (decimal).
15	**Device Address (03)_**		[01-30]	The module communicates with the panel as a Long Range Radio (LRR) device. Enter ECP device address. **NOTE:** When programming the control, enable the LRR output.
Setting up the Remote Access Feature Remote Access enables the user to control the security system using a web browser. This feature must be configured at the AlarmNet Direct website as follows: • Remote Access must be enabled by selecting "Enabled" at the Remote Access prompt. • A keypad address must be enabled in the GSMX in order for the module to communicate with the control panel. • At the "Keypad Type" prompt, select the appropriate Keypad.				
16	**Remote Access Y/N (N)_**		[Y], [N]	Press [Y] to allow the end user to access their system via a website. Availability of this service is controlled by the dealer via the web-based programming tool on the AlarmNet Direct website.
17	**Keypad Address (28)_**		[01-30]	**NOTE:** This prompt will only appear if the Remote Access feature has been enabled. Must be programmed if using the Remote Access feature. Enter the appropriate device address.

	PROMPTS	ENTRY	OPTIONS	DESCRIPTION
18	**Supervi-sion (24 Hours)_**		• 30 Day • 24 Hour • None	The AlarmNet network must hear at least one supervisory message from the module during this supervision period; otherwise, AlarmNet notifies the central station that a communication failure has occurred. (If the supervision period is changed after registration, you must re-register the module.) Press the [space] key to scroll through choices. **UL NOTE:** Must be 24 hour.
19	**Old Alarm Time (10 Minutes)_**		• 10 Minutes • 15 Minutes • 30 Minutes • 1 Hour • 2 Hours • 4 Hours • 8 Hours • 12 Hours • 24 Hours	The old alarm time sets how long an undeliverable alarm is retried for delivery to the central station. If the message is not validated, it is retried until the old alarm time is reached or the message is validated. Press the [space] key to scroll through choices. **UL NOTE:** Must be 10 minutes.
20	**GSM Flt Time (00 mins)_**		[01-99] [00] = not used	In the event the module detects a communication path failure, enter the time delay (in minutes) before the module notifies the control panel with a trouble message. The control panel can then notify the central station. **UL NOTE:** Must be one (01) minute.

	PROMPTS	ENTRY	OPTIONS	DESCRIPTION
21	**Review? Y/N**		[Y] = review [N] = exit	**Reviewing Programming Mode Entries** To review the programming options (to ensure that the correct entries have been made), press [Y]. The programming prompts are displayed again. Use the up/down arrow keys to scroll through the program fields without changing any of the values. If a value requires change, simply type in the correct value. When the last field is displayed, the "REVIEW?" prompt again appears. **To exit the programming mode**, press [N] in response to the "REVIEW?" prompt, and refer to ***Exiting Programming Mode*** topic.

ECP Status Codes

The GSMX sends status messages to the control panel to report various failures. Some control panels, (e.g., VISTA-10P, VISTA-15P and VISTA-20P Series) display these status codes on the keypad as "LngRng Radio" followed by a 4-digit code. Commercial panels can supervise the communicator module by way of its ECP address, ex: 03. For example, if the module is disconnected, if it's not registered, or the SIM is deactivated, a "Check 803" will be displayed.

The control panel will display a fault message if any of the events listed below occur.

- Module lost communications with the control panel.
- Module lost contact with AlarmNet.
- Module is not registered; account not activated.
- Module shutdown.

In addition, the Contact ID codes for some of these conditions are reported by the control panel and sent by AlarmNet to the central station.

Exiting the Programming Mode

To exit the programming mode, press [N] in response to the "REVIEW?" question. Then press [Y] to the "Exit Prog Mode?" question. Upon exiting, the message "Checking Root File TX Path" will be displayed, and the configuration file at the server is updated to log the changes made. When complete, the message "DONE" is displayed to indicate the file was successfully uploaded.

If critical configuration changes were made, such as the mode of operation, the GSMX will reset to ensure that the programming features are enabled.

If the file is not successfully uploaded, one of the following prompts will be displayed. Follow the steps shown below until the upload is successful.

Display	Description	What to do
Cannot Upload **Try Again?** **Y/N_**	GSM Communicator has not yet initialized.	Wait for SIGNAL (green) LED to be lit. Press [Y].
Failed to Update **Root File!**	Network problem, or you answered "N" to "Cannot Upload Try Again?" prompt.	Initiate the Force Server Update command by pressing the [0] key.

Setting Factory Defaults

To reset the programming options to factory-default values, press [ESC] at the "Exit Prog Mode?" prompt.

Set Default? **Y/N_**	Press [Y] to reset factory default values. Press [N] to cancel this function.

If you press [Y], all programmed values are reset to the original factory settings.

PLEASE NOTE THAT THIS WILL ERASE ANY PASSWORD THAT MAY HAVE BEEN ENTERED. After pressing [Y], the Create Password prompt appears (see Programming step 4).

Registering the Module

Once you have programmed the GSMX, it must be registered to enable the AlarmNet account. Registering the communications module activates the account with AlarmNet and enables the security system's control panel to send reports. You can register by using one of the following methods:

- AlarmNet Direct website
- 7720P Programming Tool
- Test Message/Registration switch
- Phone

The top display LED will indicate the module's registration status as follows: (Refer to the ***Summary of Connections*** topic.)

LED	Indication
REG (green)	ON – Module is NOT registered with AlarmNet. OFF – Module is registered with AlarmNet.

You can monitor the registration process by viewing the display LEDs. The TX/RX (yellow) LED and the REG (green) LED will blink slowly in unison while registration is in progress.

When the registration successfully completes, the GSMX enters a normal operating mode; the REG (green) LED goes out and the TX/RX (yellow) LED is lit to indicate that the power-on / reset message is waiting to be sent. This message will appear at the receiving station as "E339 803". The description may read "Trouble – Exp. Mod. Reset". If registration is not validated within 90 seconds, the GSMX times out, and the REG (green) LED will be lit solid.

Registering through the AlarmNet Direct Website

To register the module via the website, go to:
https://services.alarmnet.com/AlarmNetDirect

Log in and follow the on-screen prompts. If you are not signed up for this service, click on "Dealer Signup" from the login screen to create an account. You will be instructed how to proceed upon completing the sign-up form. Only one sign-up per dealer is required. Once an initial user is established, additional logins may be created by that user.

> **NOTE:** Central Stations can sign up by contacting AlarmNet Support at 800-222-6525 and selecting option 1.

Please have the following information available:

- Primary City ID (two-digit number).
- Primary Central Station ID (two-digit hexadecimal number).
- Primary Subscriber ID (four-digit number).
- MAC ID and MAC CRC number (located on outside of box and on label inside module).

After the communications module is registered, you may log out of the AlarmNet Direct website.

Remote Services

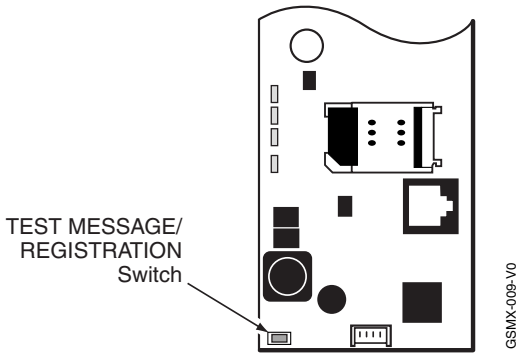
The dealer/installer will set up the customer account and define the events to be notified of. These events match the output relay triggering events that were programmed in the control panel.

> **NOTE:** At the AlarmNet Direct website, refer to the online "*AlarmNet Direct User Guide*" for information on configuring the hardware and creating a Total Connect web account for the customer.

Once the dealer assigns a login name and password, the customer will receive a "Welcome" e-mail message with their login name along with some helpful information. The customer will receive another e-mail message with their password. They will then be able to receive notifications, and access their system via the Total Connect website or using their cell phone/PDA that supports GSM/GPRS and Text Messaging (SMS).

Registering Using the Test Message/Registration Switch

Initiate the registration sequence by clicking the TEST MESSAGE/REGISTRATION switch three times.



Registering Using the Programming Tool

The interactive registration feature allows the installer to register the GSMX through a series of keyboard commands on the 7720P Programming Tool. This method of registration lets the installer monitor the registration process.

Registering …

Once the installation is complete, press the **[Shift] plus the up arrow [↑]** on the 7720P. The registration message is sent and the unit waits for the acknowledgment.

Registration SUCCESS	If this is a new installation and the city, central station, and customer numbers have been correctly entered, the GSMX is registered and this message is displayed. The GSMX is now in full service and available for alarm reporting to the central station.

Possible Errors

Registration BAD Timed Out	Displayed if no response to the registration request is received.
Registration BAD Pri Sub ID BAD	Indicates the city, central station, or customer number for the labeled account(s) is not accepted. The ID information was either entered in error, or the central station failed to pre-authorize programmed ID numbers with AlarmNet customer service.
Registration BAD Pri ID – Need PIN	Displayed if this is a repair/replacement, or an error was made in programming the Primary account information of GSMX for an existing account. This prompt appears for 2 seconds. See the ***Replacing an existing module using the programming tool*** topic.

Replacing an existing module using the programming tool

Enter PIN#	This prompt appears after pressing the **down arrow [↓]** on the 7720P. Enter a 4-digit alphanumeric PIN number provided by your central station, your dealer or an authorized AlarmNet representative. Press the [ENTER] key.
Registering …	The registration message is sent and the unit waits for acknowledgement.
Registration SUCCESS	If the PIN is valid, the new GSMX is registered and the old unit unregistered. Additionally, AlarmNet sends a substitution alarm to the central station.
Registration BAD	If you entered an invalid PIN, the appropriate message is displayed depending on which account number is being replaced (see above for exact wording). The registration process is repeated. **NOTE:** Each attempt causes a substitution alarm to be sent to the central station.

Registering by Phone

You can register the module by calling the AlarmNet Support at 1-800-222-6525 (Option 1). You will need the following information:

- MAC ID and CRC (located on outside of box and on label inside module).
- Subscriber information (provided by the central station), including a city code, CSID, and subscriber ID.
- When instructed to do so, triple-click the **Test Message/Registration** switch to complete the registration.

Diagnostic Commands

The 7720P programming tool can be used to view the connectivity settings and options. To invoke diagnostic commands; such as [A], [B], [C], etc., the [shift] key MUST used. For example, [shift] + [A] displays the software revision.

Module Identification Displays

[A]	**7845GSM** **x.x.xx** **mm/dd/yy**	**Software Revision** "x.x.xx" indicates the installed software revision. Mm/dd/yy indicates month, day and year of the revision.
[B]	**MAC** **xxxxxxxxxxxx** **MAC CRC** **yyyy**	**MAC Address** "xxxxxxxxxxxx" indicates the GSMX's unique identification number. "yyyy" indicates the MAC CRC number. These numbers are found on the label on the module, as well as the label on the box. Press the [Space] key to go to the next field. Press the [BS] key to go to the previous field.
	SCID xxxxx **xxxxx** **xxxxx** **xxxxx**	**SCID Display** Displays the identification number assigned to the SIM card (SCID) in this device. Press the [Space] key to go to the next field. Press the [BS] key to go to the previous field.
	IMEI **xxxxxxxx** **xxxxxx** **x**	**IMEI Display** Displays the identification number assigned to the GSM module in this device. Press the [Space] key to get the MAC Address. Press the [BS] key to go to the previous field.

[C]	**Mon 01 Jan 2001** **05:48:39 am**	**Time** Retrieves the current date and time from the AlarmNet network in Greenwich Mean Time (GMT). This display confirms that the module is in sync with network.
[D]	**Encryption Test** **AES Passed!**	**Encryption Test** Performs a self-test of the AES encryption algorithm. Press the [Space] key to go to the next field. Press the [BS] key to go to the previous field.

GSM Status Displays

[E]	**PriRSSI GPRS REG** **-xxxdbm x x**	**GSM Status Display Screen 1** PriRSSI – Primary Site RSSI level in dBm GPRS – GPRS Service availability where "x" can be: "Y" if GPRS is available "N" if GPRS is Not available REG – Registration status from communicator module where "x" can be: N – Not Registered H – Registered Home S – Searching D – Registration Denied R – Registered Roaming ? – Unknown Registration State Press the [Space] key to go to the next screen. Press the [BS] key to go to the last screen.
	Cntry Netw LAC **xxx xxx xxxxx**	**GSM Status Display Screen 2** Cntry – Country Code Netw – Network Code LAC – Local area code Press the [Space] key to get to the next screen. Press the [BS] key to go to the previous field.

	Cell BaseSt Chan **xxxxx x xxx**	**GSM Status Display Screen 3** Cell – Base Station ID BaseSt – Base Station Antenna Sector Chan – Control Channel in use Press the [Space] key to go to the next screen. Press the [BS] key to go to the previous field.
	Second Site RSSI **-xxxdbm**	**GSM Status Display Screen 4** Secondary GSM Site RSSI level in dbm. Press the [Space] key to go to the GSM Status Display Screen 1. Press the [backspace] key to go to the previous field.
[S]	**ECP Flt** **OK**	**ECP Mode** Displays the mode of operation and system fault status. Flt – Represents communicator faults: OK = Normal, No fault. G = No network connectivity over GSM and fault time has expired. g = No network connectivity over GSM and fault time has NOT yet expired.
[T]	**Test Msg Sent**	**Test Alarm** Sends a Test alarm to AlarmNet. Functional for a *registered* GSMX only. If the device is not registered, a message is displayed indicating that the command cannot be executed.
[X]	**Reset CPU Y/N**	**Reset the GSMX.** Pressing [N] returns to normal mode. Pressing [Y] resets the device.
[Shift] [↑] (UP arrow)	**Registering …**	**Registration** Registers a programmed GSMX with AlarmNet.
[↓] (DN arrow)	**Enter PIN#**	**Registration with PIN for Replacement Module** Registers a replacement GSMX with AlarmNet, once programmed, using the existing PIN #.

[0]	**Force Server Update? Y/N**	**Force Upload of Configuration File to Server** Pressing [Y] will force the device to upload its entire configuration file to the server. Pressing [N] cancels the operation. **NOTE:** If the GSM module is not initialized when you enter this command, the following screen will be displayed: **Cannot Upload Try Later! _** Wait for the SIGNAL (green) LED to light, indicating the GSM module has completed its initialization, and try again.
[ENTER]	**Strt Prog Mode? Y/N_**	**Enter Program Mode** Press [Y] to enter program mode; otherwise, press [N].

Central Station Messages

The following messages are sent to the Central Station by AlarmNet for the conditions listed below.

Alarm Condition	ECP Mode		4204 Modes	
	Alarm Code	Restore Code	Alarm Code	Restore Code
Power On / Reset (xx=device address)	E339 C08xx		5551 5555 6	
ECP Supervision	E355 C0000	R355 C0000	5555 5515 5	5555 5535 5
Communication Path Supervision	E350 C0951	R350 C0951	5555 5551 5	5555 5553 5
Test	5555 5555 9		5555 5555 9	

NOTE: The control panel sends its own general code (E353) for a trouble condition.

Uploading and Downloading of Panel Data

NOTE: For UL, downloading may only be performed if a technician is at the site.

The GSMX can be used to provide high-speed up/downloading to control panels (that support this feature) over the GPRS network via ECP communication. This allows site maintenance independent of central station monitoring, and modification to sites globally. Refer to the control panel's *Installation and Setup Guide* for detailed information.

- The GSMX cannot be used for Direct-Wire downloading.

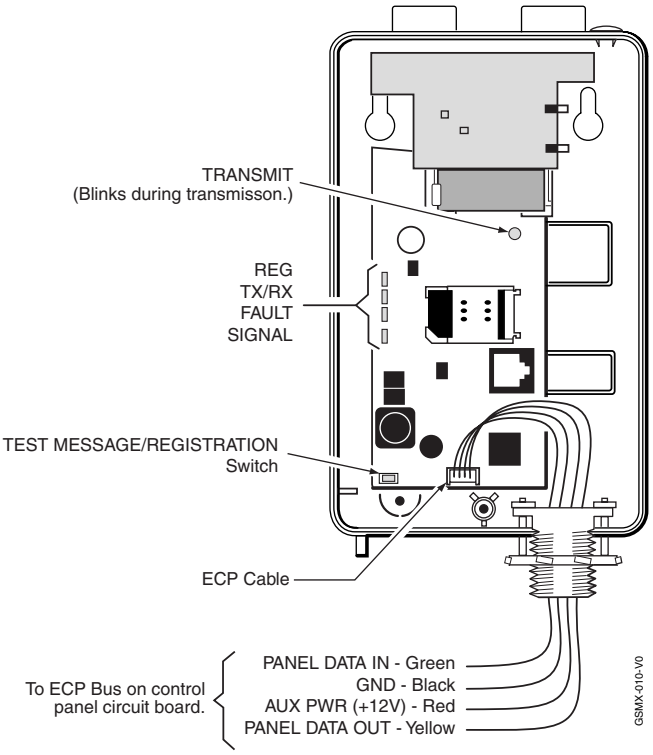
Glossary

AES	Advanced Encryption Standard
CRC	Cyclic Redundancy Check used to confirm validity of MAC ID.
DACT	Digital Automated Communications Terminal
ECP	Enhanced Console Protocol, is a proprietary bus used in Honeywell control panels to communicate with keypads and peripheral devices. It uses four wires; power, ground, data in, data out.
GPRS	General Packet Radio Service.
GSM	Global System for Mobile communications, which is an international standard for digital mobile phone systems used for cellular communication.
IMEI	International Mobile Equipment Identity number.
MAC ID	Media Access Code, this is a unique address assigned to every network communications device. Typically it is located on the module label, and on the box.

NOTES

LED and Wiring Information

LED	DESCRIPTION
REG (green)	ON – Module is NOT registered with AlarmNet. OFF – Module is registered with AlarmNet. FAST BLINK – Download session with Compass in progress. SLOW BLINK – In unison with yellow LED – Registration in progress.
TX/RX (yellow)	ON – Message transmission pending. QUICK PERIODIC BLINK - Normal FAST BLINK – Message waiting for network ACK. SLOW BLINK – In unison with green LED – Registration in progress.
FAULT (red)	ON – No contact with network. OFF– Normal. SLOW BLINK – Loss of communication with the panel (ECP fault). FAST BLINK – No network contact AND loss of communication with the control panel.
SIGNAL (green)	ON – Minimum required signal strength is present. BLINKING – Marginal signal strength is present. OFF – Installation is not recommended.
ALL	FAST BLINK – Hardware Error.



FEDERAL COMMUNICATIONS COMMISSION (FCC) STATEMENTS

The user shall not make any changes or modifications to the equipment unless authorized by the Installation Instructions or User's Manual. Unauthorized changes or modifications could void the user's authority to operate the equipment.

CLASS B DIGITAL DEVICE STATEMENT

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

INDUSTRY CANADA (IC) STATEMENTS

This device complies with RSS210 of Industry Canada. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

DOCUMENTATION AND ONLINE SUPPORT

For the latest documentation and online support information, please go to:

http://www.security.honeywell.com/hsc/resources/MyWebTech/

WARRANTY

For the latest warranty information, please go to:

http://www.security.honeywell.com/hsc/resources/wa/

Honeywell

2 Corporate Center Drive, Suite 100,
P.O. Box 9040, Melville, NY 11747

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